

# Left ventricular chord masquerading as an aortic valve papillary fibroelastoma

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A 62-year-old woman presented to the emergency department with acute right foot weakness. Her medical history was notable for stage III lung adenocarcinoma, coronary artery disease, Parkinson disease, and systemic lupus erythematosus. She previously had left upper lung lobectomy and was responding to treatment with crizotinib. Brain magnetic resonance imaging showed two small zones of new restricted diffusion in the posterior left frontal cortex representing acute zones of infarction concerning for a cardioembolic stroke. Furthermore, she had multiple additional zones of chronic-appearing infarction with a large wedge-shaped anterolateral right frontal encephalomalacia which were new as compared to her previous brain images.

Transoesophageal echocardiography demonstrated a mass, which was thought to be a papillary fibroelastoma (PFE), measuring 9 mm × 5 mm × 4 mm, and attached to the non-coronary cusp of the aortic valve (Figure 1A–D). The aortic valve was functionally normal with no evidence of regurgitation or stenosis. A 24-hour Holter monitor did not show any significant arrhythmia. Bilateral carotid ultrasound imaging showed minimal atheromatous plaques in both carotid bifurcations with no evidence of significant stenosis.

In the absence of other aetiologies for the multifocal brain lesions and given the size of the PFE, a decision was made to excise the aortic

valve mass. During the surgery, no fibroelastoma was seen. An anomalous chord was instead identified crossing the aortic valve and inserting into the left aortic sinus near the left main coronary ostium. The chord inserted in the ventricle in the papillary muscle near the origin of the chordal attachments of the mitral valve. The chord was then excised, and no other abnormalities were identified. The surgically excised specimen showed a single filamentous chord measuring 8.0 cm (length) by 0.1 cm (diameter) (Figure 1E). Histopathologic examination revealed a paucicellular tendinous chord with focal nodular calcifications (Figure 1F). Few months later, the patient died of metastatic brain disease which rapidly progressed despite the initiation of radiation. This case underlines the importance of close examination of the aortic subvalvular apparatus when assessing aortic valve masses.

**Consent:** The patient reported in this case is deceased. Despite the best efforts of the authors, they have been unable to contact the patient's next-of-kin to obtain consent for publication. Every effort has been made to anonymize the case. This situation has been discussed with the editors.

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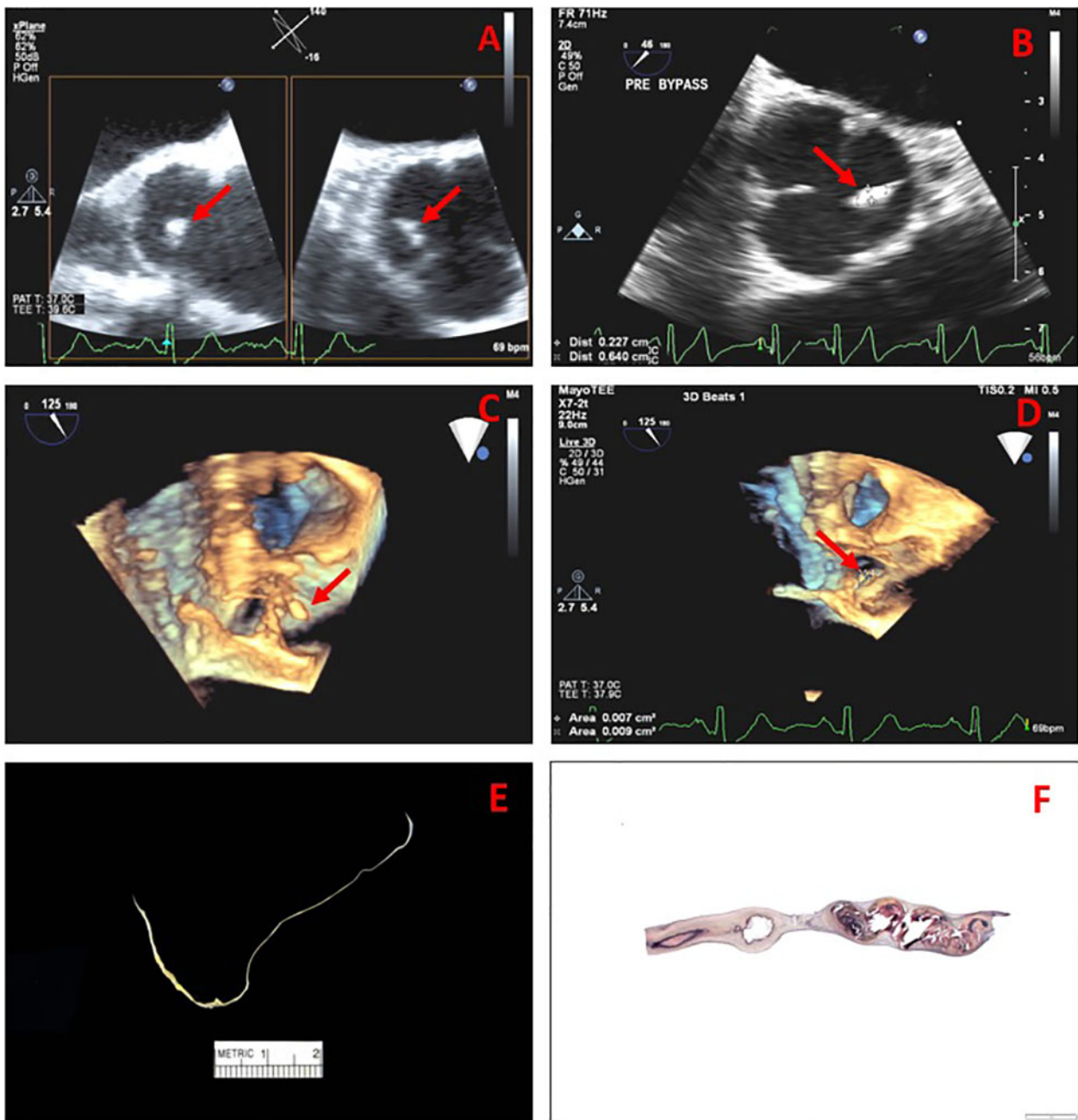
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**Figure 1.** Transoesophageal echocardiography showed an aortic valve mass attached to the non-coronary cusp. (A) Visualization of the aortic valve by biplane-mode in the long-axis view and the corresponding short-axis view. (B) Two-dimensional mid-esophageal short-axis view of the aortic valve. (C and D) Three-dimensional long-axis view of the aortic valve. The surgically excised specimen (E) showed a single filamentous chord measuring 8.0 cm (length) by 0.1 cm (diameter). Histopathologic examination (F) revealed a paucicellular tendinous chord with focal nodular calcifications (12.5× original magnification; Verhoeff-van Gieson stain).